

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)

Review of the Commission’s Rules)
Governing the 896-901/935-940 MH Band)

WT Docket No. 17-200

REPLY COMMENTS OF SPACE DATA CORPORATION

Space Data Corporation (“Space Data”) is pleased to submit these reply comments in response to the *Notice of Proposed Rulemaking* (“*Notice*”) in the above-referenced proceeding that proposes to reconfigure the 896-901/935-940 MHz band (the “900 MHz band”) to facilitate the use of broadband technologies.¹ Space Data is a licensee in the adjacent Narrowband Personal Communications Service (“NPCS”) band. Space Data agrees with commenters that to the extent the Commission reconfigures the 900 MHz band, the Commission must ensure that NPCS licensees are protected from any harmful interference caused by operations in the 900 MHz band.² In addition, Space Data notes that its NPCS spectrum and technologies could serve as an alternative to help meet the spectrum and unique operational needs of 900 MHz licensees, particularly utilities and other members of the critical infrastructure industry (“CII”).³

¹ *Review of the Commission’s Rules Governing the 896-901/935-940 MHz Band*, Notice of Proposed Rulemaking, WT Docket No. 17-200; FCC 19-18 (rel. Mar. 14, 2019).

² *See, e.g.*, Comments of Sensus USA Inc., at 3-9, WT Docket No. 17-200 (June 3, 2019) (“Sensus Comments”); Comments of Alliant Energy, at 1-2, WT Docket No. 17-200 (June 3, 2019); Comments of the Utilities Technology Council, at 7-8, 27-28, WT Docket No. 17-200 (June 3, 2019).

³ The NPCS band has 32 channel blocks, most of which are organized in blocks of 12.5 kHz to 150 kHz. The communications industry has gone through significant changes since NPCS licenses were auctioned in the 1990s and early 2000s, including the advent of IoT technologies. It would help facilitate the use of narrowband IoT and other protocols in the NPCS band if the band was realigned to support 180 kHz to 200 kHz channels.

I. NPSC LICENSEES MUST BE PROTECTED FROM ANY HARMFUL INTERFERENCE RESULTING FROM THE RECONFIGURATION OF THE 900 MHZ BAND

A portion of Space Data's NPCS licenses covers the frequencies 901.300-901.750 MHz, 940.300-940.750 MHz, 901.900-902.000 MHz, 940.900-9410.000 MHz, 930.000-930.400 MHz, and 930.700-931.000, all on a near nationwide basis. Space Data operates near-space wireless networks on its spectrum from balloon-borne platforms (SkySite® Platforms) in a noise-limited network. In addition, oil and gas companies, utilities, and infrastructure suppliers have acquired NPCS spectrum from Space Data and use the spectrum for CII and other operations.

Space Data appreciates the Commission's efforts to protect NPCS licensees from harmful interference as it considers reconfiguring the 900 MHz band. For example, the *Notice* proposes to locate a paired 3 MHz broadband allocation in the 900 MHz band with 1.5 MHz narrowband segments below the broadband allocation and 0.5 MHz segments above the broadband allocation. This would establish a 500 kHz guard band between 900 MHz band broadband operations and NPCS operations. The *Notice* also proposes to place more stringent out-of-band-emission limits on the 900 MHz band to protect NPCS operations from harmful interference.

While the guard band and emission limits should help ensure adjacent NPCS licensees do not experience harmful interference, Space Data agrees with Sensus USA Inc. ("Sensus") that the Commission can take additional steps to protect NPCS operations.⁴ Specifically, Space Data agrees that the Commission should:

- Confirm that 900 MHz broadband licensees are responsible for preventing harmful interference to NPCS operations and resolving any such interference at their expense in the shortest time practicable, consistent with the Commission's proposal for 900 MHz band narrowband operations;
- Add language to Parts 27 and 90 of the Commission's rules requiring licensees to cooperate in the event of harmful interference and establishing the right for the

⁴ See Sensus Comments at 5-8.

Commission to impose operational restrictions or tighter out-of-band emissions limits if necessary to resolve harmful interference; and

- Encourage broadband segment proponents to conduct real-world testing simulations prior to deployment, which would allow operators to address any unexpected issues prior to full deployment of broadband services in the 900 MHz band.

These proposals reflect a common-sense approach to safeguarding critical CII and other operations in the NPCS band, and they would not be unduly burdensome on 900 MHz band operators.

Space Data also agrees that the Commission must reject proposals to create a paired 5 MHz broadband segment in the 900 MHz band.⁵ Without a sufficient guard band and appropriate emission limits, the likelihood of harmful interference to the NPCS band is simply too great. Indeed, the record shows that a 5 MHz broadband segment would essentially render NPCS spectrum unusable and negate the significant investment NPCS licensees have made in the band.⁶ No commenter has provided any solution that would resolve these interference issues. Broadband operations thus should not be allowed immediately adjacent to or near the NPCS band.

II. OTHER ALTERNATIVES EXIST TO HELP MEET THE SPECTRUM NEEDS OF THE CRITICAL INFRASTRUCTURE INDUSTRY AND OTHER 900 MHZ BAND LICENSEES

The record shows that there is wide range of existing and future spectrum needs by the CII and other users of Business/Industrial/Land Transportation (“B/ILT”) spectrum as demand increases by the CII for wireless data networks. It is crucial that CII and other safety-related

⁵ See, e.g., Comments of Ameren, at 6, WT Docket No. 17-200 (June 3, 2019) (stating that a 5/5 MHz broadband allocation has merit); Comments of Southern California Edison, at 7, WT Docket No. 17-200 (June 3, 2019) (proposing that the FCC give 900 MHz band broadband operators the right to expand to 5/5 MHz once in-band incumbents are cleared or accommodated and interference to adjacent band licensees is eliminated or resolved); Comments of Southern Company Services, Inc., at 4-7, WT Docket No. 17-200 (June 3, 2019) (proposing a 5/5 MHz broadband allocation where there is no opposition from 900 MHz narrowband operators or incumbents in adjacent areas).

⁶ See, e.g., Sensus Comments at 8-9.

operations not be interrupted or otherwise affected by changes to the 900 MHz band. Extra channels may be needed on a temporary and/or permanent basis (as was required during the process of reconfiguring the 800 MHz band) so as not to interrupt service of existing CII networks. As a practical matter, however, it may be impossible to fit all such operations into a reconfigured 900 MHz band and still provide licensees with unimpeded access to spectrum.

A portion of Space Data's NPCS licenses are available on the secondary market and could help ease the spectrum needs of the CII and other users of the 900 MHz band. Indeed, numerous energy companies are already using NPCS spectrum acquired on the secondary market. Space Data's NPCS licenses could be configured to create additional narrowband and wideband alternatives for the CII, utilities, and other B/ILT users. Space Data has aggregated several adjacent NPCS channels to create paired bandwidth of 100/100 kHz and up to 450 kHz paired bandwidth in the NPCS 901 and 940 MHz bands, plus wide blocks of 300 and 400 kHz in the NPCS 930 MHz band across the nation.

III. CONCLUSION

Consistent with the comments set forth above, the Commission must ensure that the reconfiguration of the 900 MHz band does not cause interference to adjacent NPCS licensees.

Respectfully submitted,

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